



United States
Department of
Agriculture

Soil
Conservation
Service

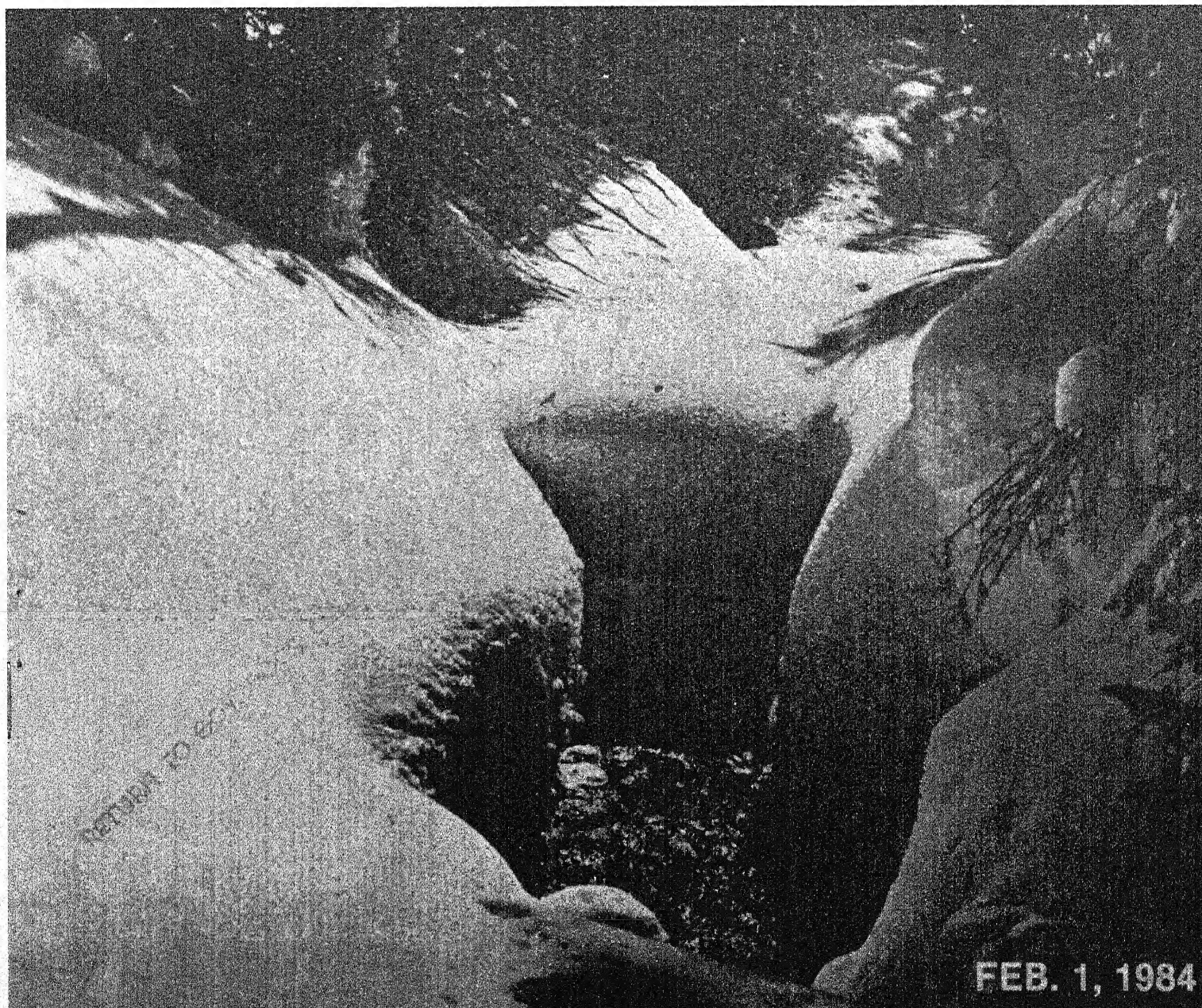
United States
Department of
Commerce

NOAA
National
Weather
Service

Salt River
Valley
Water Users
Association

Water Supply Outlook for Arizona

Federal-State-Private
Cooperative
Snow Surveys



FEB. 1, 1984

Issued by

PETER C. MYERS

CHIEF

**SOIL CONSERVATION SERVICE
WASHINGTON, D.C.**

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PHOENIX, ARIZONA**

In Cooperation with

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WATER RESOURCES**

JOHN LASSEN

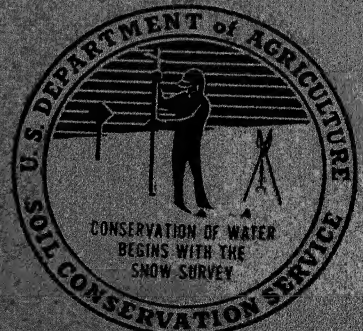
**PRESIDENT
SALT RIVER VALLEY WATER
USERS ASSOCIATION**

Report prepared by

RONALD A. JONES

**SNOW SURVEY SUPERVISOR
SOIL CONSERVATION SERVICE
ROOM 3008 FEDERAL BUILDING
PHOENIX, ARIZONA 85025**

COVER PHOTO -
Spring is on the way



**BELOW AVERAGE STREAMFLOW IS FORECAST
FOR ARIZONA OVER THE FEBRUARY-MAY PERIOD**

WATER SUPPLY

Forecasts developed near February 1 indicate that surface water supplies in 1984 will be heavily dependent on reservoir storage. February-May runoff on streams within Arizona and southwestern New Mexico is expected to be below average. Water users depending on direct stream diversions should prepare for possible shortages. Forecasts are for 44% of average flow on the Verde River, 54% of average on the Salt River, and 25% on Tonto Creek. Inflow to the Salt River Project is forecast to be 359,000 acre-feet. The San Francisco River at Clifton is expected to run 70% of average. The Gila River is forecast to produce runoff of 84% of average at Virden, New Mexico; 75% of average at the Head of Safford Valley, and 53% at Calva. The Little Colorado River is expected to produce 52% of average flow at Greer and 26% above Lyman Reservoir. The Mimbres River is forecast to flow 87% of average at Mimbres, New Mexico.

SNOW COVER

Very little snow was deposited in the mountain areas during January. Although some small increases in snow water equivalent were reported, the percent of average snowpack decreased on all watersheds. The snowpack near February 1 stood at 40% of average on the Verde River, 78% on the Salt River, 85% on the upper Little Colorado, and 88% on the Gila-San Francisco drainage.

PRECIPITATION

January precipitation was light and variable. Stations around the Verde Watershed received amounts ranging generally from .25 inch to 1.5 inches. The Salt River Watershed received amounts in the 1.0 to 1.5 inch range. Stations on the San Francisco-Gila drainage recorded .33 inch to 1.25 inches at valley locations and 1 to 2 inches at mountain stations. Almost all of this precipitation came in the first two weeks of the month.

STREAMFLOW

Recorded streamflow declined in January from that observed in December in most cases. However, stream volumes are being held up by residual effects of abundant fall precipitation combined with some snowmelt due to above average temperatures in much of January.

Observed Streamflow - January 1984

<u>Stream</u>	<u>1000's Acre-Feet</u>	<u>% of Average</u>
Salt River	62	117
Verde River	27	56
Tonto Creek	6	30
San Francisco - Clifton	23	153
Gila - Virden	24	160
Gila - Solomon	54	159

RESERVOIR
STORAGE

Major reservoirs still hold a large volume of water in storage. Salt River Project reports a February 1 total of 1,711,000 acre-feet at 85% of capacity. San Carlos Reservoir is 98% full, with 921,000 acre-feet. Lake Pleasant contains 129,000 acre-feet, which is 82% full. Nearly 100,000 acre-feet remains in Painted Rock Dam. The four major reservoirs in the Colorado River are at 91% of capacity, with 48,607,000 acre-feet.

STREAMFLOW FORECASTS ARE COORDINATED BETWEEN
THE SOIL CONSERVATION SERVICE AND NATIONAL WEATHER SERVICE.
AVERAGES OF STREAMFLOW, SNOW PACK, PRECIPITATION,
AND RESERVOIR STORAGE ARE BASED ON THE 20-YEAR PERIOD 1961-80.

ABOUT FEBRUARY
1, 1984

STREAMFLOW FORECASTS

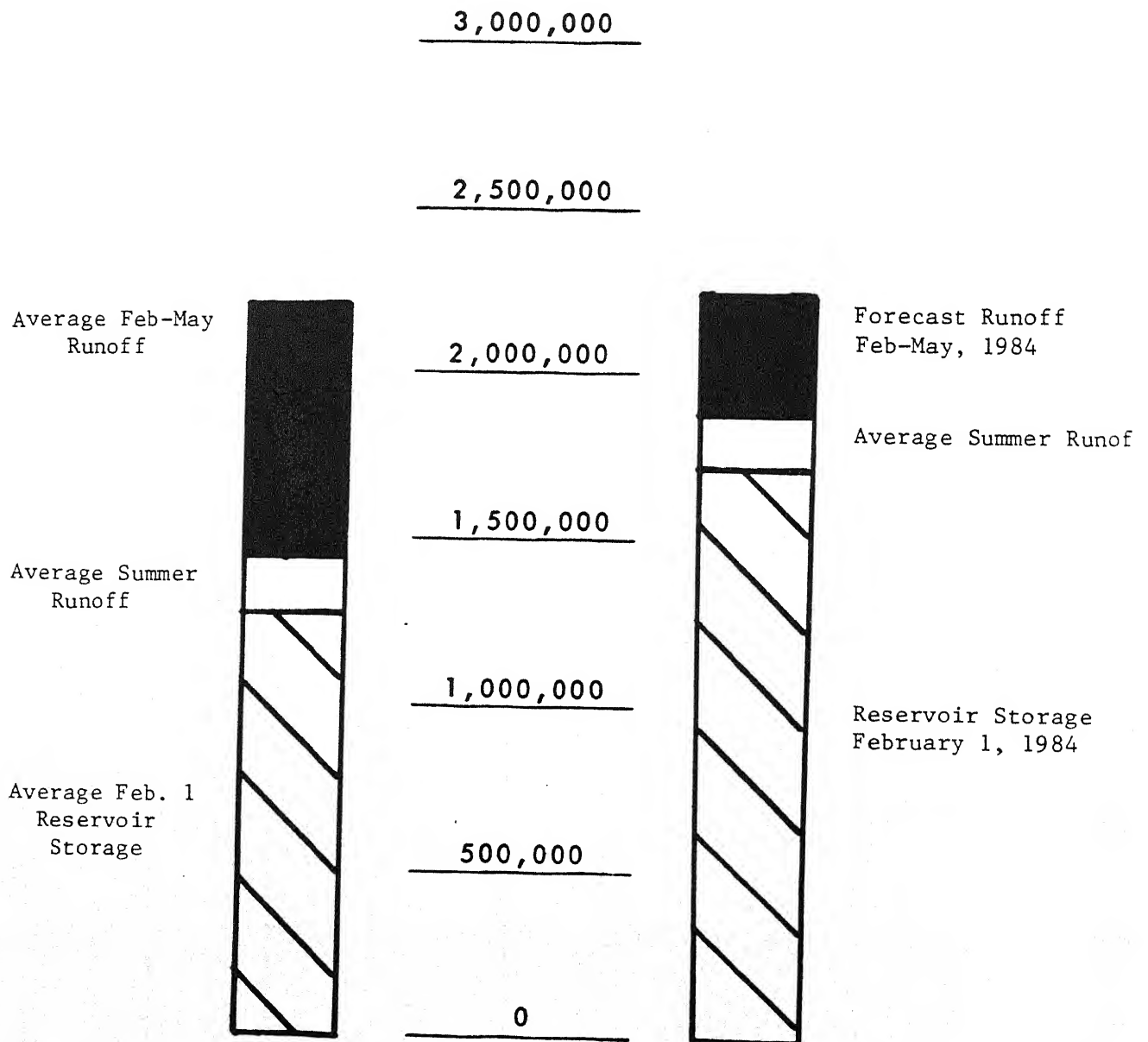
STREAMFLOW FORECASTS		1, 1984		THIS YEAR		PAST RECORD	
BASIN, STREAM and/or FORECAST POINT		FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET		
		Thousand Acre Feet	Percent of Average		Last Year	Average †	
<u>SALT RIVER DRAINAGE</u>							
Salt near Roosevelt		225	54	Feb-May	932.5	412.9	
"		35	42	February	160.7	83.2	
Tonto Creek near Roosevelt		19	25	Feb-May	197.8	76.8	
"		6	21	February	67.5	28.5	
Verde River above Horseshoe		115	44	Feb-May	574.7	260.1	
"		21	26	February	158.6	78.6	
Total Salt River Project Streams		359	48	Feb-May	1705.0	749.8	
"		62	33	February	386.8	190.3	
<u>GILA RIVER DRAINAGE</u>							
Gila River at Calva		66	53	Feb-May	518.2	123.9	
Gila River near Gila		55	92	Feb-May	147.1	59.6	
Gila River near Solomon		125	75	Feb-May	548.1	165.6	
"		30	57	February	144.5	52.8	
Gila River near Virden		65	84	Feb-May	218.0	76.9	
Frisko River at Clifton		55	70	Feb-May	244.5	78.7	
Frisko River at Glenwood		25	62	Feb-May	107.8	40.0	
<u>LITTLE COLORADO RIVER DRAINAGE</u>							
Little Colo. River above Lyman Dam		3.6	26	Feb-June	---	13.62	
Greer		4.3	52	Feb-June	---	8.30	
<u>GRANITE CREEK DRAINAGE</u>							
Granite Creek		1.4	--	Feb-May	---	---	
Willow Creek		1.2	--	Feb-May	---	---	
<u>MIMBRES RIVER DRAINAGE</u>							
Mimbres River near Mimbres		4.0	87	Feb-May	11.9	4.5	
<u>COLORADO RIVER DRAINAGE</u>							
Virgin River near Littlefield		75	121	Apr-June	252.5	61.5	
Lake Mary Inflow		1.8	---	Feb-May	---	---	
† Based on 20-year period, 1961-80							
* Average is for less than 20 years							
- 3 -							

WATER SUPPLY INVENTORY SALT RIVER VALLEY SYSTEM

IN ACRE-FEET

AVERAGE WATER SUPPLY
FEBRUARY 1

ANTICIPATED WATER SUPPLY
FEBRUARY 1, 1984



Based on Present Storage + Forecast Spring Runoff + Average Summer Runoff

RESERVOIR STORAGE (Thousand Acre Feet) FEBRUARY 1, 1984

BASIN or STREAM	RESERVOIR	Usable Capacity	Usable Storage		
			This Year	Last Year	Average†
<u>LA RIVER</u>					
<u>INAGE</u>					
La Fria	Lake Pleasant	157.6	128.9	126.5	71.0
White	Watson Lake	4.7	4.7	4.5	2.7
White	Willow Creek	6.1	6.1	3.7	2.7
San Carlos	San Carlos	935.0	921.1	190.5	262.9
Painted Rock Dam	Painted Rock Dam	2,492	99.8	17.4	---
Ut (4)	Roosevelt, Apache, Canyon & Saguaro	1,709	1,482	1,492.2	1,150.6
De (2)	Bartlett and Horseshoe	309.6	229	223.6	127.5
Ut and Verde	6 Salt River Project Reservoirs	2,019	1,711	1,715.8	1,278.1
<u>COLORADO RIVER</u>					
<u>INAGE</u>					
Colorado	Lake Havasu	619.4	550.4	532.6	545.9
Colorado	Lake Mohave	1,810	1,692	1,707	1,671
Colorado	Lake Mead	26,159	24,370	23,921	18,312
Colorado	Lake Powell	25,002	21,994	22,409	11,851
Little Colorado	Lyman	30.6	---	---	---
Little Colorado	Show Low Lake	5.1	5.0	1.5	---
Based on 20-year average, 1961-80					
Average is for less than 20 years of record					
- 5 -					

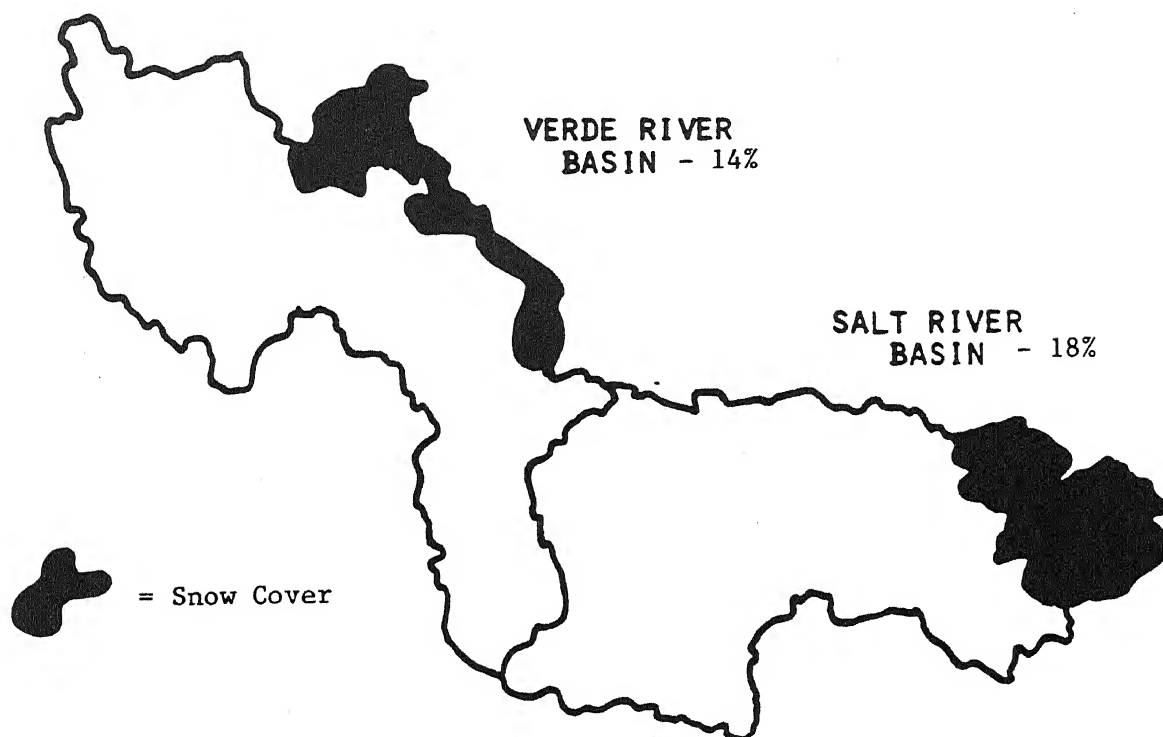
SUMMARY of SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average
<u>ABOUT JANUARY 15, 1984</u>			
Gila	9	59	100
Salt	8	54	88
Verde	10	34	48
Little Colorado	4	67	94
<u>ABOUT FEBRUARY 1, 1984</u>			
Gila	9	46	88
Salt	8	47	78
Verde	10	31	40
Little Colorado	4	55	84

- 6 -

BASIN SNOW COVER GOES WEST SATELLITE

JANUARY 24, 1984



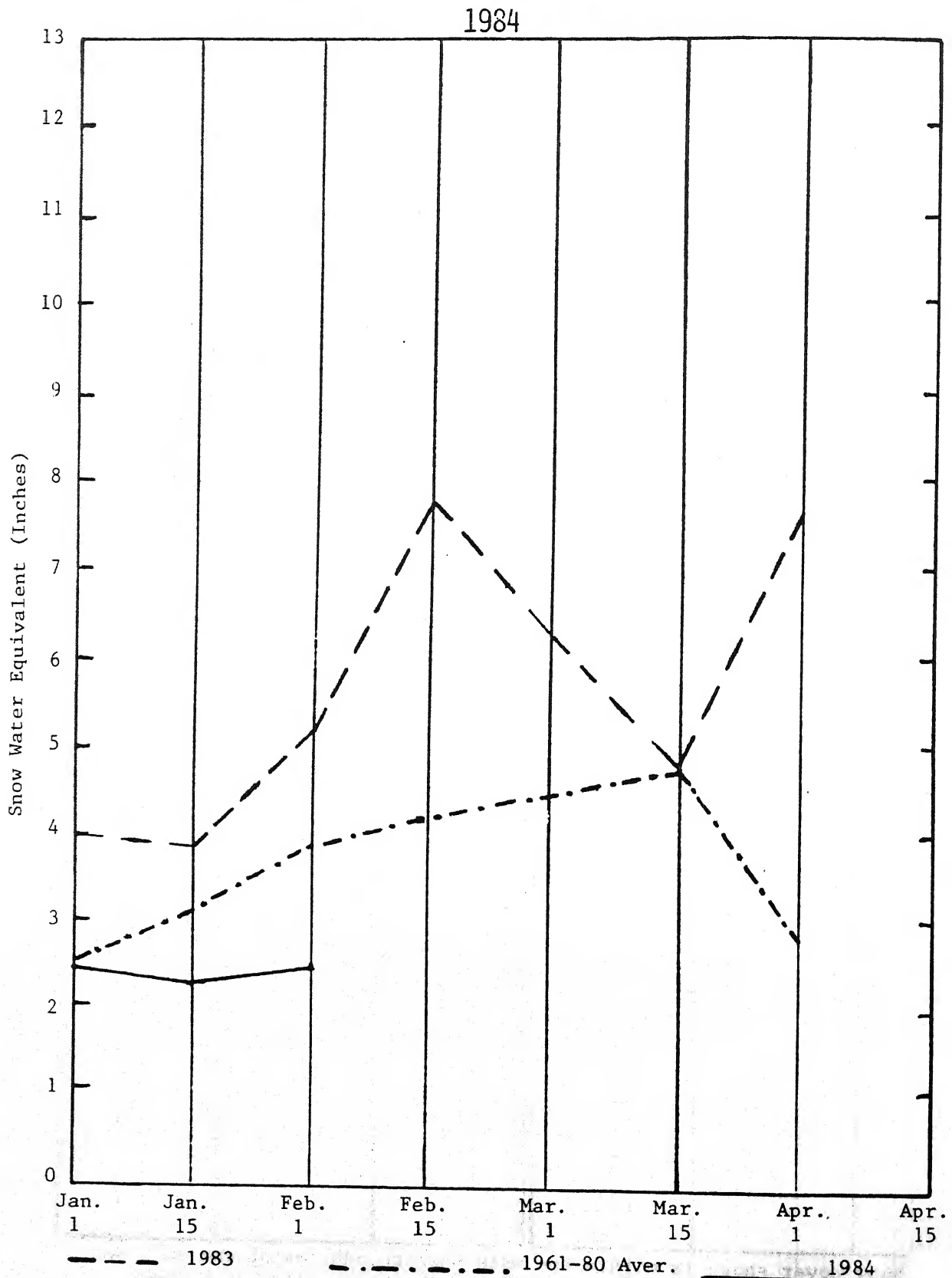
PREVIOUS SNOW COVER

	VERDE RIVER	SALT RIVER		VERDE RIVER	SALT RIVER
Dec. 1983					
30	13%	30%			
Jan. 1984					
4	7%	18%			
9	0.4%	14%			
18	17%	21%			
20	16%	20%			

Note: Snow cover shown is within the watershed boundaries of the Salt and Verde River. Total snow cover may extend further into adjacent basins.

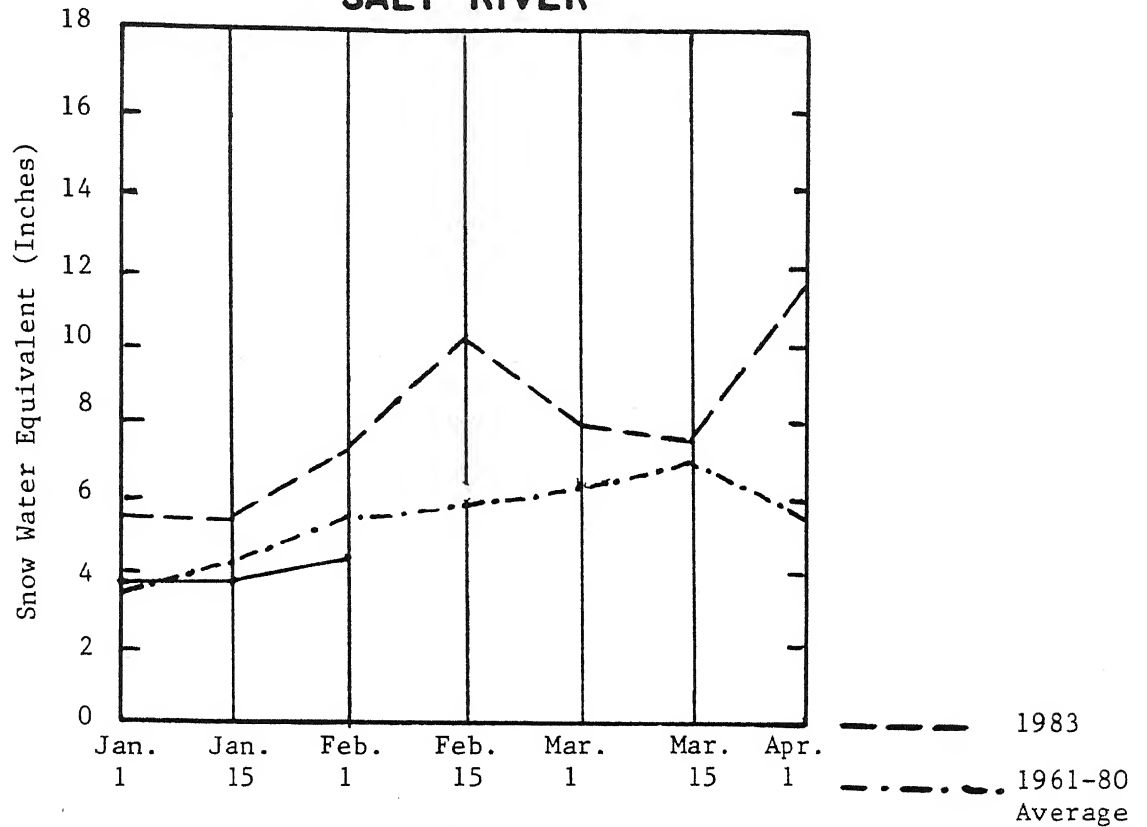
ARIZONA

AVERAGE SNOW COVER

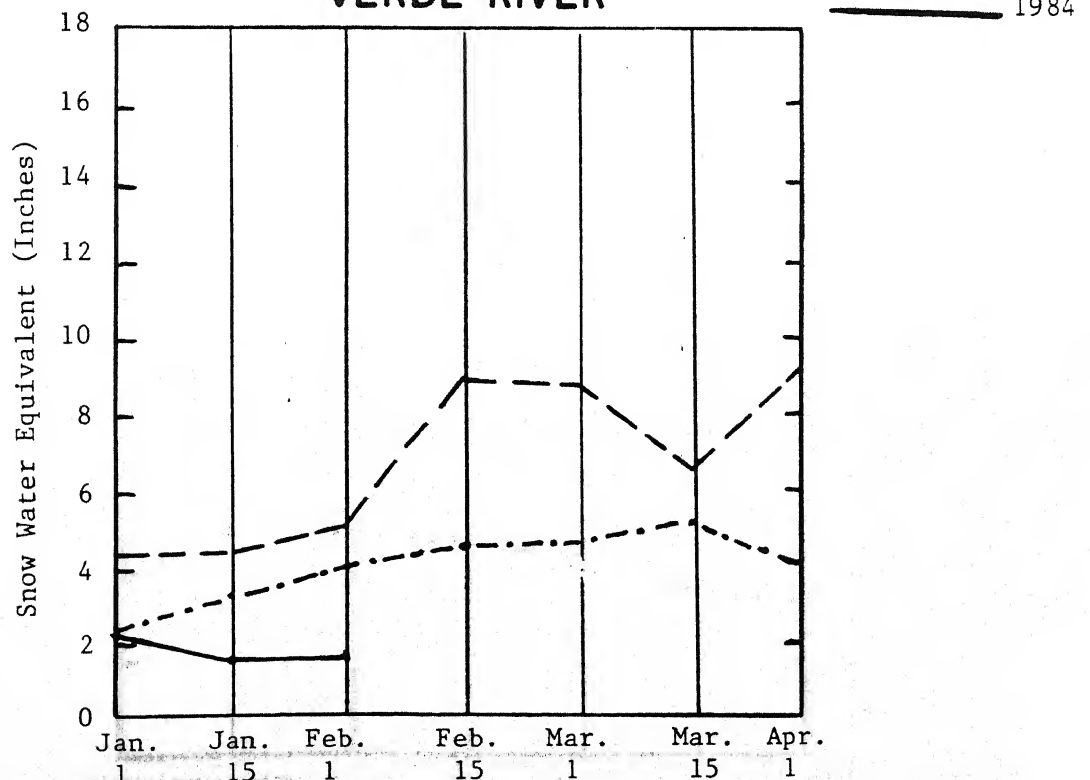


WATERSHED SNOW COVER

1984
SALT RIVER



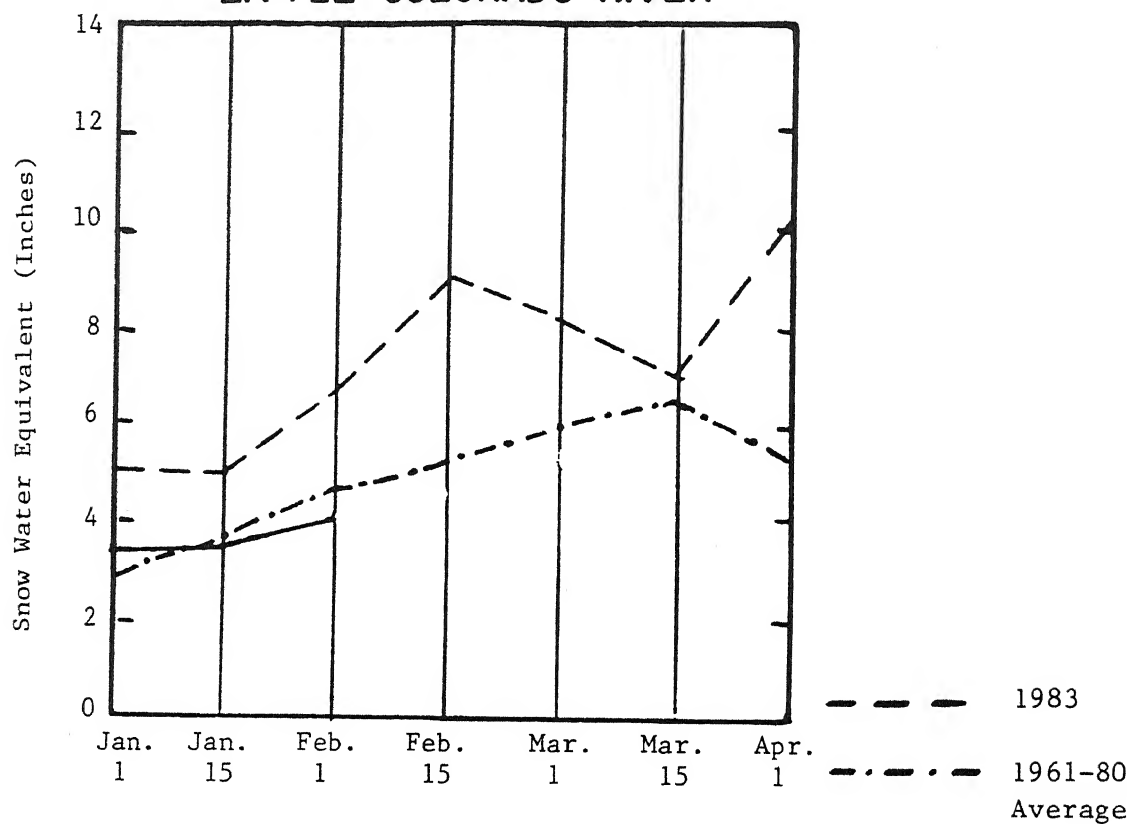
VERDE RIVER



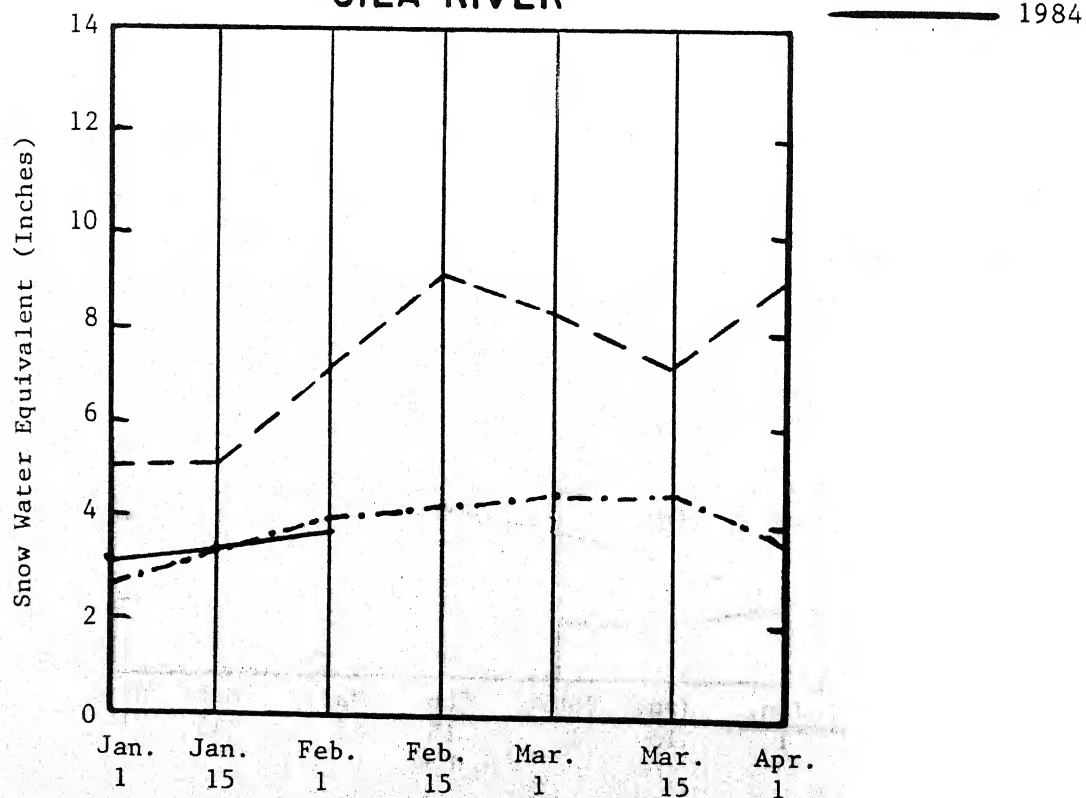
WATERSHED SNOW COVER

1984

LITTLE COLORADO RIVER



GILA RIVER



SNOW ABOUT JANUARY 15, 1984

SNOW ABOUT JANUARY 15, 1984		THIS YEAR			PAST RECORD	
DRAINAGE BASIN and or SNOW COURSE		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
NAME	Elevation				Last Year	Average †
SALT RIVER						
Baldy *	9220	1-13	18	4.9	6.4	4.7
BALDY SNOTEL	9220	1-15	--	5.4	7.9	5.5
Beaver Head	8000	1-13	5	1.4	4.7	2.6
Canyon Creek	7500	1-12	5	1.5	3.9	3.2
Canyon Point	7600	1-12	5	1.9	4.8	3.9**
Coronado Trail	8400	1-13	5	1.6	4.9	2.7
CORONADO TRAIL SNOTEL	8400	1-15	--	1.3	3.4	2.4**
Forest Dale Alternate	6580	1-13	0	0.0	---	1.5
Ft. Apache	9160	1-13	20	5.2	7.1	4.9
Hannagan Meadows	9090	1-13	28	6.8	11.8	5.5**
HANNAGAN MEADOWS SNOTEL	8960	1-15	--	9.7	11.9	5.5E
Heber	7640	1-12	5	1.8	4.2	3.3
HEBER SNOTEL	7640	1-15	--	3.4	3.5	4.0**
Maverick Fork	9050	Not Scheduled			---	5.7
MAVERICK FORK SNOTEL	9200	1-15	--	7.0	10.2	5.7**
Nutriosio *	8500	1-13	2	0.7	2.9	1.9
Promontory Butte	7900	1-12	20	7.7	--	8.6**
PROMONTORY SNOTEL	7900	1-14	--	8.8	---	8.6**
Workman Creek	6900	1-16	7	2.4	5.0	4.5
WORKMAN CREEK SNOTEL	6900	No Report			1.7	4.5**
LOWER COLORADO RIVER						
Bright Angel	8400	1-13	20	6.1	10.8	---
Chalender *	7100	1-13	0	0.0	1.6	2.2
Fort Valley	7350	1-13	1	0.2	3.5	1.5
Grand Canyon	7500	1-13	0	0.0	2.0	1.9
Williams Ski Run	7720	1-13	8	2.9	7.6	4.8**
† 1961-80 20-year period. (*) Adjacent drainage. (**) 1961-80 Adjusted Average. (A) Aerial observation: water content estimated. Snotel data is edited.						
- 11 -						

† 1961-80 20-year period. (*) Adjacent drainage. (**) 1961-80 Adjusted Average. (A) Aerial observation: water content estimated. Snotel data is edited.

SNOW ABOUT JANUARY 15, 1984

DRAINAGE BASIN and or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
					Last Year	Average †
NAME	Elevation					
<u>GILA RIVER</u>						
Beaver Head	8000	1-13	5	1.4	4.7	2.6
Coronado Trail	8400	1-13	5	1.6	4.9	2.7
CORONADO TRAIL SNOTEL	8400	1-15	--	1.3	3.5	2.4**
Emory Pass #2 *	7800	1-12	3	0.9	3.5	1.4**
Frisco Divide	8000	1-16	7	1.7	3.3	2.2
FRISCO DIVIDE SNOTEL	8000	1-14	--	3.0	3.9	1.8**
Hannagan Meadows *	9090	1-13	28	6.8	11.8	5.5**
HANNAGAN MEADOWS SNOTEL	8960	1-15	--	9.7	11.9	5.5E
Hummingbird (A)	10550				---	9.3**
LOOKOUT MOUNTAIN SNOTEL	8150	1-15	--	3.7	5.0	---
McKnight Cabin * (A)	9300	Not Scheduled			---	3.2**
Mogollon	7000	Not Scheduled			---	1.3
Nutrioso	8500	1-13	2	0.7	2.9	1.9
Redstone Trail	8600	Not Scheduled			---	5.2
SIGNAL PEAK SNOTEL	8360	1-15	--	4.7	5.5	---
Silver Creek Divide	9070	Not Scheduled			---	6.8**
SILVER CREEK SNOTEL	9070	1-16	--	9.1	9.7	6.8**
State Line	8000	1-16	9	1.4	4.0	2.3
Whitewater (A)	10750				---	11.0**
<u>VERDE RIVER</u>						
Baker Butte	7330	1-12	2	0.8	6.1	5.1**
BAKER BUTTE SNOTEL	7330	1-15	--	0.6	7.3	4.6**
Baker Butte #2	7700	1-12	15	5.6	12.1	8.0**
Chalender *	7100	1-13	0	0.0	1.6	2.2
Copper Basin Divide	6720	1-16	1	0.1	0.6	1.8**
Fort Valley	7350	1-13	1	0.2	3.5	1.5
FRY SNOTEL	7200	No Report			3.8	3.7**
Gaddes Canyon	7600	1-13	3	1.0	6.3	3.3
Happy Jack	7630	1-13	5	1.7	4.8	2.8
Mingus Mountain	7100	1-13	0	0.0	0.0	0.9
Mormon Lake *	7350	1-13	3	1.2	3.9	3.3
Mormon Mountain	7500	1-13	7	2.9	6.5	3.9
MORMON MOUNTAIN SNOTEL	7500	1-15	--	1.5	5.6	4.0
Mormon Mountain Summit #2	8470	Not Scheduled			---	---
Newman Park	6750	1-13	0	0.0	0.5	2.3**
Snow Bowl #1 Alternate	9920	1-13	25	6.9	11.0	6.2
#2	11000	1-13	34	9.3	16.2	9.8**
SNOTEL	6120	1-15	--	0.0	0.0	---
Lake Jct.	7180	1-13	0	0.0	3.1	2.6**
LAKE SNOTEL	7180	1-15	--	0.1	4.5	3.4**

1-year period. (*) Adjacent drainage. (**) 1961-80 Adjusted
 (A) Aerial observation: water content estimated. Snotel data is

SNOW ABOUT JANUARY 15, 1984		THIS YEAR			PAST RECORD	
DRAINAGE BASIN and or SNOW COURSE		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
NAME	Elevation				Last Year	Average †
<u>LITTLE COLORADO RIVER</u>						
Baldy	9220	1-13	18	4.9	6.4	4.7
BALDY SNOTEL	9220	1-15	--	5.4	7.9	5.5**
Canyon Creek	7500	1-12	5	1.5	3.9	3.2
Canyon Point	7600	1-12	5	1.9	4.8	3.9*
Cheese Springs	8600	1-12	12	3.1	4.5	3.2**
Forest Dale Alternate	6580	1-13	0	0.0	---	1.5
Ft. Apache	9160	1-13	20	5.2	7.1	4.9
Fort Valley	7350	1-13	1	0.2	3.5	1.5
Happy Jack	7630	1-13	5	1.7	4.8	2.8
Heber	7640	1-12	5	1.8	4.2	3.3
HEBER SNOTEL	7640	1-15	--	3.4	3.5	4.0**
Lake Mary	6970	1-13	0	0.0	3.5	2.1**
Mormon Lake	7350	1-13	3	1.2	3.9	3.3
Mormon Mountain	7500	1-13	7	2.9	6.5	4.0
MORMON MOUNTAIN SNOTEL	7500	1-15	--	1.5	6.2	4.0
Mormon Mountain Summit #2	8470	Not Scheduled			---	---
Nutriosio *	8500	1-13	2	0.7	2.9	1.9
Promontory Butte	7900	1-12	20	7.7	---	8.6**
PROMONTORY SNOTEL	7900	1-14	--	8.8	---	8.6**
Snow Bowl #1 Alternate	9920	1-13	25	6.9	11.0	6.2
Snow Bowl #2	11000	1-13	34	9.3	16.2	9.8**

† 1961-80 20-year period. (*) Adjacent drainage. (**) 1961-80 Adjusted Average. (A) Aerial observation: water content estimated. Snotel data is edited.

- 13 -

SNOW ABOUT FEBRUARY 1, 1984

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average †
<u>SALT RIVER</u>						
Baldy *	9220	1/31	21	5.3	9.7	6.0
BALDY SNOTEL	9220	1/31	--	5.5	12.0	6.5
Beaver Head	8000	2/1	5	1.8	6.5	3.2
Canyon Creek	7500	1/30	4	1.6	3.0	4.1
Canyon Point	7600	1/30	7	2.3	3.8	4.8**
Coronado Trail	8400	2/1	5	1.5	7.0	3.0
CORONADO TRAIL SNOTEL	8400	1/31	--	1.3	4.0	3.5**
Forest Dale Alternate	6580	1/31	0	0.0	---	1.3
Ft. Apache	9160	1/31	23	6.6	10.7	6.2
Hannagan Meadows	9090	2/1	29	8.6	15.5	7.3E
HANNAGAN MEADOWS SNOTEL	8960	1/31	--	9.7	16.9	7.3E
Heber	7640	1/30	5	1.8	2.6	4.2
HEBER SNOTEL	7640	1/31	--	2.6	4.8	5.3**
Maverick Fork	9050	1/31	25	6.1	12.2	7.4
MAVERICK FORK SNOTEL	9200	1/31	--	7.0	14.5	7.8**
Nutrioso *	8500	2/1	2	0.7	3.3	2.2
Promontory Butte	7900	1/30	20	7.5	---	11.0**
PROMONTORY SNOTEL	7900	1/31	--	8.8	---	11.0**
Workman Creek	6900	1/31	5	1.9	7.6	5.5
WORKMAN CREEK SNOTEL	6900	1/31	--	2.3	8.4	5.3**
<u>LOWER COLORADO RIVER</u>						
Chalender *	7100	1/31	0	0.0	2.4	2.8
Fort Valley	7350	1/31	0	0.0	3.6	2.2
Grand Canyon	7500	2/1	T	0.1	2.1	2.2
Williams Ski Run	7720	1/31	12	3.4	7.2	6.5**
Bright Angel	8400	1/31	20	6.7	11.3	8.5**

† 1961-80 20-year period. (*) Adjacent drainage. (**) 1961-80 Adjusted Average. (A) Aerial observation; water content estimated. Snotel data is edited.

SNOW ABOUT FEBRUARY 1, 1984

DRAINAGE BASIN and or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
NAME	Elevation				Last Year	Average †
GILA RIVER						
Beaver Head	8000	2/1	5	1.8	6.5	3.2
Coronado Trail	8400	2/1	5	1.5	7.0	3.0
CORONADO TRAIL SNOTEL	8400	1/31	--	1.3	4.0	3.5**
Emory Pass #2 *	7800	1/30	4	1.2	3.9	1.4**
Frisco Divide	8000	1/30	6	1.4	4.0	2.5
FRISCO DIVIDE SNOTEL	8000	1/31	--	2.1	7.0	2.0**
Hannagan Meadows *	9090	2/1	29	8.6	15.5	7.3**
HANNAGAN MEADOWS SNOTEL	8960	1/31	--	9.7	16.9	7.3E
Hummingbird (A)	10550	1/31	36	10.8	19.9	10.8**
LOOKOUT MOUNTAIN SNOTEL	8150	1/31	--	4.0	6.2	---
McKnight Cabin * (A)	9300	1/31	12	4.3	9.0	3.3**
Mogollon	7000	N O T	S C H E D U L E D	---	---	1.2
Nutrioso	8500	2/1	2	0.7	3.3	2.2
Redstone Trail	8600	N O T	S C H E D U L E D	---	---	6.3
SIGNAL PEAK SNOTEL	8360	1/31	--	4.7	9.0	---
Silver Creek Divide	9070	N O T	S C H E D U L E D	---	---	8.2**
SILVER CREEK SNOTEL	9070	1/31	--	9.3	14.3	8.2**
State Line	8000	1/30	4	1.0	5.6	2.7
Whitewater (A)	10750	1/31	36	10.1	20.2	13.5**
VERDE RIVER						
Baker Butte	7330	1/30	5	1.5	5.5	6.4**
BAKER BUTTE SNOTEL	7330	1/31	--	1.2	10.2	6.0**
Baker Butte #2	7700	1/30	18	6.8	12.3	10.2**
Chalender *	7100	1/31	0	0.0	2.4	2.8
Copper Basin Divide	6720	1/31	0	0.0	0.0	1.8**
Fort Valley	7350	1/31	0	0.0	3.6	2.2
FRY SNOTEL	7200	1/31	--	3.0	---	4.8**
Gaddes Canyon	7600	1/31	2	0.4	6.9	4.2
Happy Jack	7630	1/31	3	1.2	5.6	3.8
Mingus Mountain	7100	1/31	0	0.0	1.1	1.1
Mormon Lake *	7350	1/30	4	1.5	6.3	4.3
Mormon Mountain	7500	1/30	8	3.3	8.6	5.2
MORMON MOUNTAIN SNOTEL	7500	1/31	--	3.2	7.5	5.4
Mormon Mtn. Summit #2	8470	N O T	S C H E D U L E D	---	---	---
Newman Park	6750	1/30	0	0.0	1.0	2.6**
Snow Bowl #1 Alternate	9920	1/31	27	8.1	11.2	7.9
Snow Bowl #2	11000	1/31	37	10.6	16.5	11.9**
SUGAR LOAF SNOTEL	6120	1/31	--	0.0	0.0	---
White Horse Lake Jct.	7180	1/31	1	0.2	4.1	3.2**
WHITE HORSE LAKE SNOTEL	7180	1/31	--	0.0	9.4	4.2**
† 1961-80 20-year period. (*) Adjacent drainage. (**) 1961-80 Adjusted Average. (A) Aerial observation: water content estimated. Snotel data is edited.						

SNOW ABOUT FEBRUARY 1, 1984

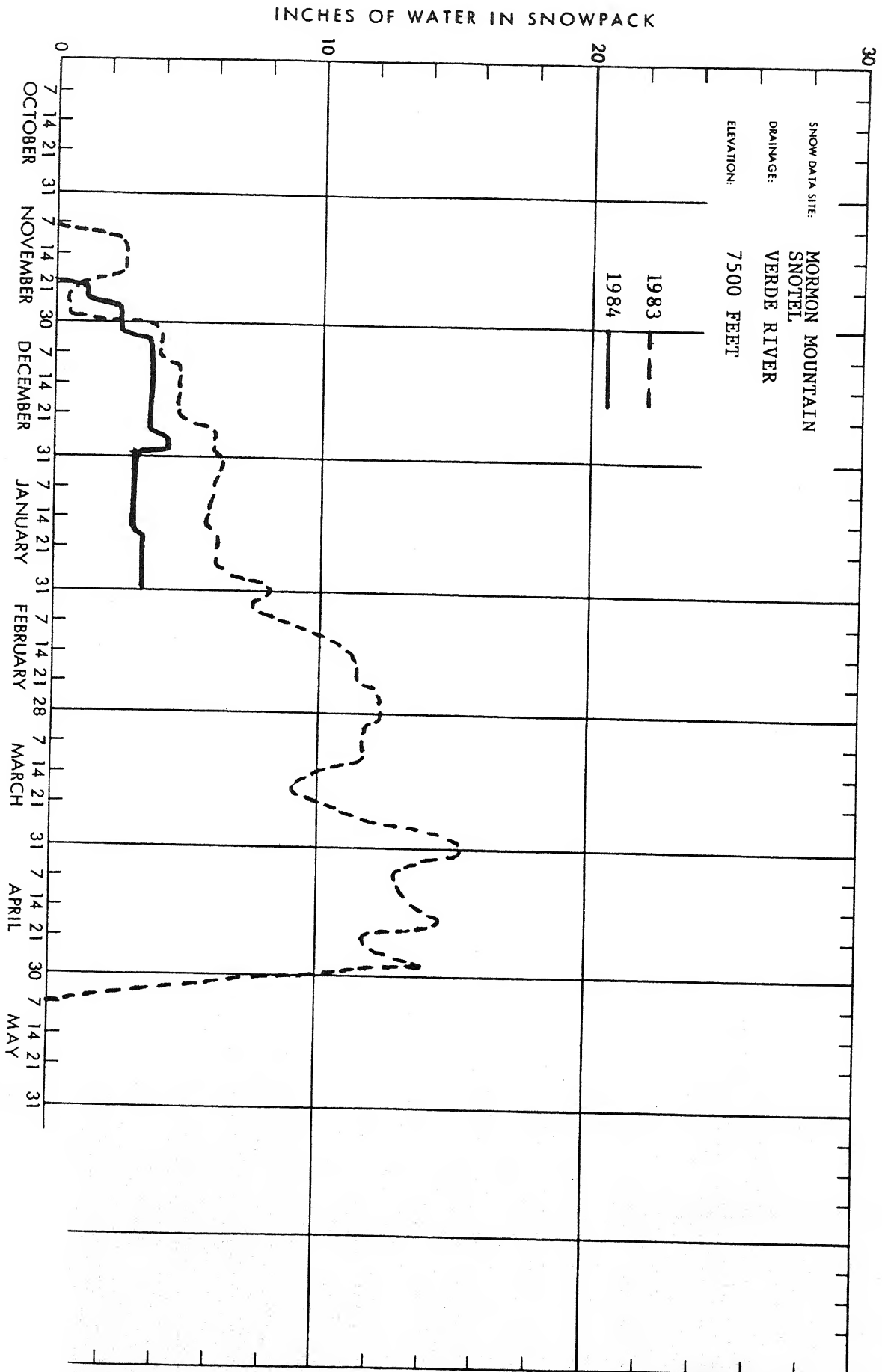
SNOW ABOUT FEBRUARY 1, 1984		THIS YEAR			PAST RECORD	
DRAINAGE BASIN and or SNOW COURSE		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
NAME	Elevation				Last Year	Average †
<u>LITTLE COLORADO RIVER</u>						
Baldy	9220	1/31	21	5.3	9.7	6.0
BALDY SNOTEL	9220	1/31	--	5.5	12.0	6.5**
Canyon Creek	7500	1/30	4	1.6	3.0	4.1
Canyon Point	7600	1/30	7	2.3	3.8	4.8**
Cheese Springs	8600	2/1	14	3.4	5.5	4.3**
Forest Dale Alternate	6580	1/31	0	0.0	---	1.3
Ft. Apache	9160	1/31	23	6.6	10.7	6.2
Fort Valley	7350	1/31	0	0.0	3.6	2.2
Happy Jack	7630	1/31	3	1.2	5.6	3.8
Heber	7640	1/30	5	1.8	2.6	4.2
HEBER SNOTEL	7640	1/31	--	2.6	4.8	5.3**
Lake Mary	6970	1/30	1	0.1	3.8	2.4**
Mormon Lake	7350	1/30	4	1.5	6.3	4.3
Mormon Mountain	7500	1/30	8	3.3	8.6	5.2
MORMON MOUNTAIN SNOTEL	7500	1/31	--	3.2	7.5	5.4
Mormon Mtn. Summit #2	8470	NOT SCHEDULED			---	---
Nutriosos *	8500	2/1	2	0.7	3.2	2.2
Promontory Butte	7900	1/30	20	7.5	---	11.0**
PROMONTORY SNOTEL	7900	1/31	--	8.8	---	11.0**
Snow Bowl #1 Alternate	9920	1/31	27	8.1	11.2	7.9
Snow Bowl #2	11000	1/31	37	10.6	16.5	11.9**

† 1961-80 20-year period. (*) Adjacent drainage. (**) 1961-80 Adjusted Average. (A) Aerial observation: water content estimated. Snotel data is edited.

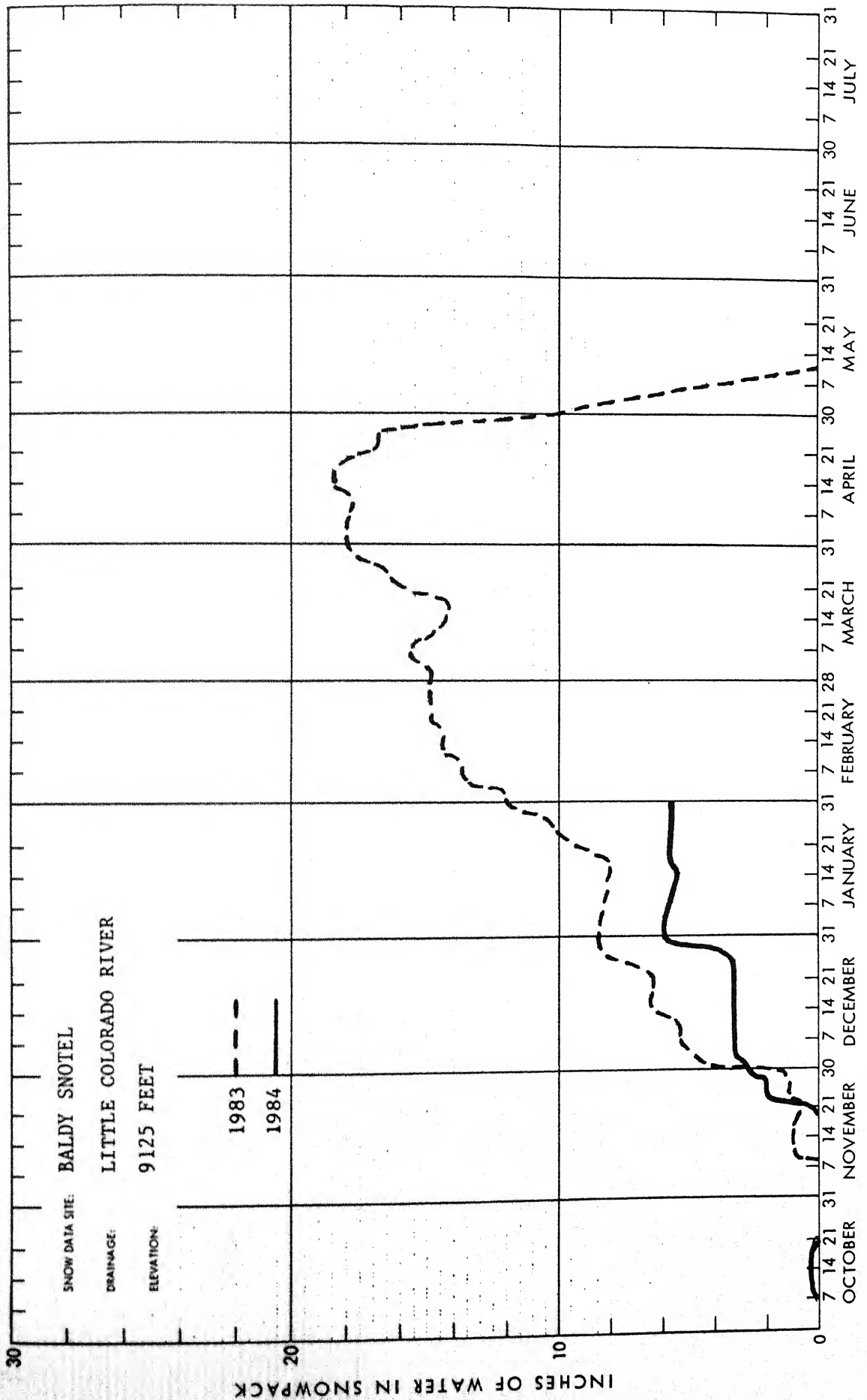
PRECIPITATION (Inches) ABOUT FEBRUARY 1, 1984 (SNOTEL SITES)

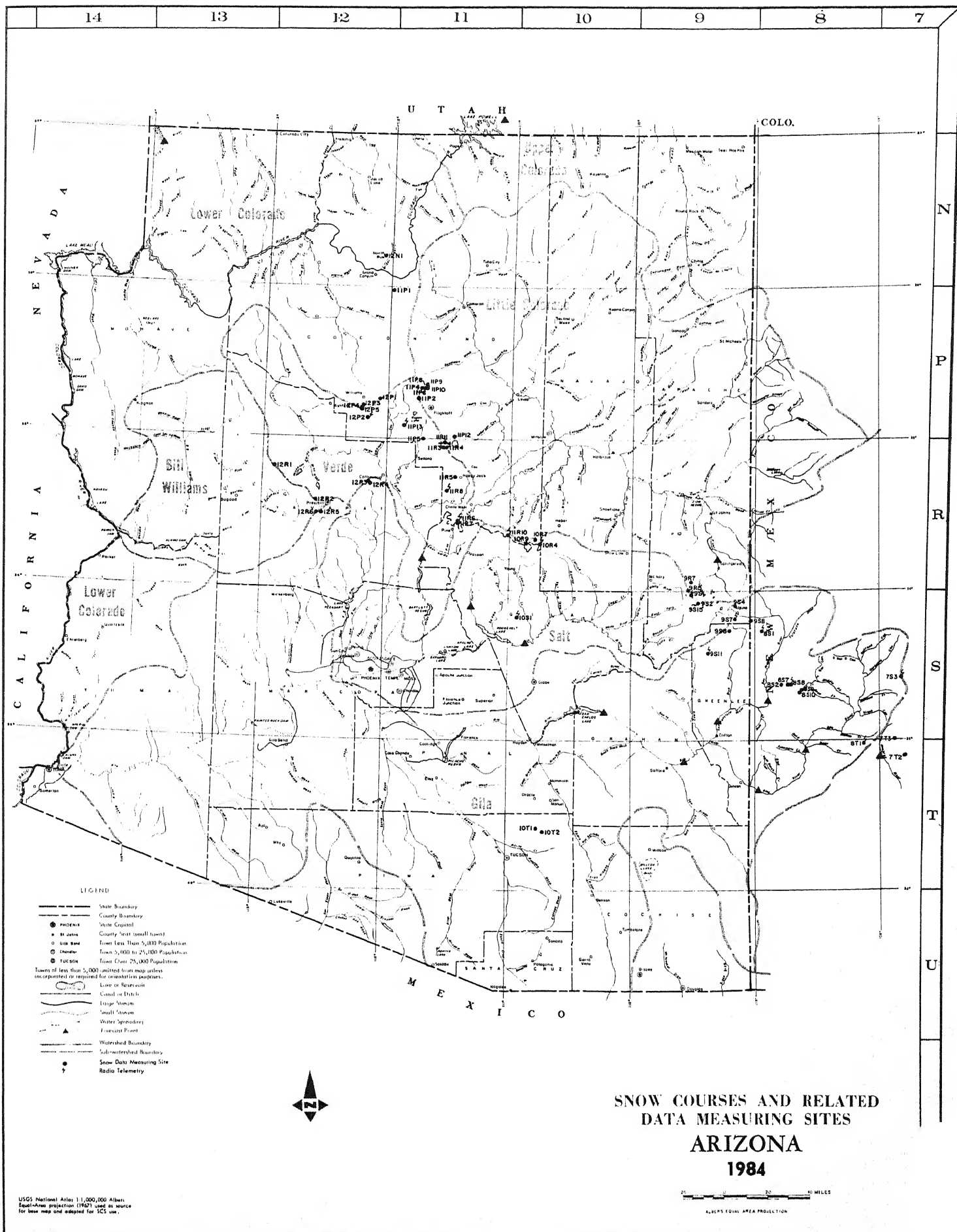
DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION			FROM APPROX. NOV. 1 TO DATE		
		Date of Reading	Month's Precipitation	Average †	This Year	Average †	Percent of Average
<u>GILA RIVER</u>							
Coronado Trail	8400	1/31	0.4	2.0	4.8	5.4	89
Hannagan Meadows	8960	1/31	1.8	3.2	10.4	9.2	113
Frisco Divide	8000	1/31	1.0	1.7	4.3	4.9	88
Silver Creek Divide	9000	1/31	2.0	---	10.2	---	---
Lookout Mountain	8150	1/31	1.5	---	4.3	---	---
Signal Peak	8360	1/31	1.2	---	8.8	---	---
<u>SALT RIVER</u>							
Promontory Butte	7930	1/31	2.1	5.4	13.7	15.5	88
Heber	7640	1/31	0.4	3.6	9.8	9.9	99
Hannagan Meadows	8960	1/31	1.8	3.2	10.4	9.2	113
Maverick Fork	9050	1/31	1.1	3.0	7.6	9.0	84
Coronado Trail	8400	1/31	0.4	2.0	4.8	5.4	89
Workman Creek	6900	1/31	1.6	4.7	12.5	12.2	102
<u>VERDE RIVER</u>							
White Horse Lake Det.	7180	1/31	0.6	3.3	6.8	9.5	72
Fry	7200	1/31	0.6	3.6	6.9	10.7	64
Mormon Mountain	7500	1/31	0.8	3.9	9.4	11.9	79
Sugar Leaf	6120	1/31	1.4	---	8.3	---	---
Baker Butte	7300	1/31	1.5	4.0	10.6	11.5	92
<u>LITTLE COLORADO</u>							
Baldy	9125	1/31	0.8	2.4	7.1	7.7	92
Heber	7640	1/31	0.4	3.6	9.8	9.9	99
Promontory Butte	7930	1/31	2.1	5.4	13.7	15.5	88
Snotel data is edited.							
- 7 -							

Snotel data is edited.



WS78-X138





INDEX TO SNOW COURSES

NUMBER	NAME	SEC.	TWP.	RGE.	ELEV.	DRAINAGE	OBSERVER	RECORD BEGAN
11P10A	Agassiz	32	23N	7E	11200	Little Colorado	SCS-CF*	1968
11R6PSPRT	Baker Butte	4	12N	9E	7300	Verde	SCS	1966
11R7	Baker Butte #2	9	12N	9E	7700	Verde	SCS	1971
9S1APSPRT	Baldy	28	7N	27E	9125	Little Colorado	SCS	1950
9S15	Baldy #2	12	6N	26E	9750	Little Colorado	SCS	1963
10T1	Bear Wallow	6	12S	16E	8100	Gila	FS	1948
9S6	Beaver Head	13	4N	30E	8000	San Francisco	FS	1938
12P5	Bill William Intermediate	17	21N	2E	8550	Cataract	FS	1967
12P4	Bill Williams Summit	17	21N	2E	8950	Verde	FS	1967
12N1	Bright Angel	34	33N	3E	8400	Bright Angel Creek	NPS	1947
12R1	Camp Wood	3	16N	6W	5700	Verde	FS	1946
10R7	Canyon Creek #2	18	11N	15E	7500	Little Colorado	SCS	1958
10R9P	Canyon Point	28	11N	14E	7600	Salt	SCS	1967
12P1	Chalender	27	22N	3E	7100	Verde	FS	1947
9R7	Cheese Springs	28	8N	27E	8600	Little Colorado	SCS	1969
12R6P	Copper Basin Divide	23	13N	3W	6720	Verde	SCS	1963
9S7PSPRT	Coronado Trail	26	5N	30E	8000	San Francisco	FS	1938
7T2	Emory Pass #2	16	16S	9W**	7800	Mimbres	SCS	1967
11P13PSPRT	Fry	35	20N	5E	7220	Verde	SCS	1978
9R5	Ft. Apache	18	7N	27E	9160	Little Colorado	SCS	1951
11P2P	Ft. Valley	22	22N	6E	7350	Little Colorado	FS	1947
8S1PSPRT	Frisco Divide	31	6S	20W**	8000	San Francisco	FS	1938
12R4	Gadde Canyon	11	15N	2E	7600	Verde	SCS	1954
11P1	Grand Canyon	21	30N	4E	7500	Hance Creek	NPS	1947
9S11PSPRT	Hannagan Meadows	19	3N	29E	9090	San Francisco	FS	1964
11R5P	Happy Jack	30	16N	9E	7630	Verde	FS	1951
10R4PSPRT	Heber	28	11N	15E	7600	Little Colorado	SCS	1950
8S9A	Hummingbird	19	11S	17W**	10550	Gila	SCS	1964
11P9P	Inner Basin #1	28	23N	7E	10000	Little Colorado	SCS-CF*	1967
11P8P	Inner Basin #2	28	23N	7E	9750	Little Colorado	SCS	1967
12R2	Iron Springs	22	14N	3W	6200	Little Colorado	SCS	1946
11P12	Lake Mary	21	19N	9E	6930	Little Colorado	SCS	1975
7S3PSPRT	Lookout Mountain	1	10S	10W	8500	Gila	SCS	1978
9S2APSPRT	Maverick Fork	13	6N	27E	9150	Salt	SCS	1950
7T3A	McKnight Cabin	10	15S	10W**	9300	Mimbres	SCS	1967
12R3	Mingus Mountain	3	15N	2E	7100	Verde	SCS	1947
8S2	Mogollon	2	11S	19W**	7000	San Francisco	SCS	1953
11R4	Mormon Lake	13	18N	8E	7350	Little Colorado	SCS	1947
11R3APSPRT	Mormon Mountain	14	18N	8E	7500	Verde	SCS	1950
11R11	Mormon Mountain Summit #2	2	18N	8E	8470	Little Colorado	SCS	1975
11P5	Newman Park	25	19N	6E	6750	Verde	SCS	1963
9S4	Nutriso	23	6N	30E	8500	San Francisco	FS	1938
11R10PSPRT	Promontory Butte	5	11N	13E	7930	Little Colorado	SCS	1973
8S7	Redstone Trail	5	11S	18W**	8600	San Francisco	SCS	1961
10T2	Rose Canyon	15	12S	16E	7300	Gila	FS	1948
8T1PSPRT	Signal Peak	13	16S	13W	8360	Gila	SCS	1977
8S8PSPRT	Silver Creek Divide	4	11S	18W**	9000	San Francisco	SCS	1964
11P4	Snow Bowl #1	36	23N	6E	10260	Verde	FS	1961
11P6	Snow Bowl #2	31	23N	7E	11000	Verde	FS	1965
9S8	State Line	6	6S	21W**	8000	San Francisco	FS	1938
11R8PSPRT	Sugarloaf	8	8E	14N	6120	Verde	SCS	1978
12P2PSPRT	White Horse Lake Jct.	2	20N	2E	7180	Verde	FS	1967
12R5	White Spar	19	13N	2W	6000	Verde	SCS	1963
8S10A	Whitewater	19	11S	17W**	10750	Gila	SCS	1964
12P3	Williams Ski Run	9	21N	2E	7720	Cataract	FS	1967
10S1PSPRT	Workman Creek	33	6N	14E	6900	Salt	FS	1952

A Aerial Snow Depth Marker
P Precipitation Storage Gage
R Radio Telemetry (SNOTEL)

SP Snow Pressure Pillow
T Temperature
** NM Principal Meridian
* City of Flagstaff

*The Following Organizations Cooperate
in the Arizona Snow Survey Work*

FEDERAL

Department of Agriculture
Soil Conservation Service
Forest Service
Apache-Sitgreaves Forest
Coconino Forest
Coronado Forest
Gila Forest
Kaibab Forest
Prescott Forest
Rocky Mountain Forest and Range
Experiment Station
Tonto Forest
Department of Commerce
NOAA, National Weather Service
Department of Interior
Bureau of Reclamation
Region III
Geological Survey
Arizona District
New Mexico District
Bureau of Indian Affairs
San Carlos Irrigation Project
National Park Service
Grand Canyon National Park
Gila Water Commissioner
Safford, Arizona

STATE

Arizona Game and Fish Department
Arizona State Parks Board
Arizona Department of Water Resources
University of Arizona
Arizona Agricultural Experiment Station
Water Resource Research Center
Department of Watershed Management
Arizona State Climatologist

MUNICIPAL

City of Flagstaff

**IRRIGATION
PROJECTS**

Salt River Valley Water Users' Association
Phoenix, Arizona
San Carlos Irrigation and Drainage District
Coolidge, Arizona
Maricopa County Municipal Water Conservation District
Peoria, Arizona

PRIVATE

Southwest Forest Industries, Inc.
Phoenix, Arizona

Other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.